THE FARMERS' CABINET,

DEVOTED TO AGRICULTURE, HORTICULTURE AND RURAL ECONOMY.

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Agricultural Papers.

While contemplating the immense and incalculable benefits which must necessarily result not only to the farmer and planter, but to the public in general, and to every class of the community in whatever occupation engaged, from the general improvement of agriculture and the powerful tendency of agricultural papers to produce such improvement, the man of reflection, who loves his country and who feels any regard for the happiness of his fellow men, cannot but be struck with astonishment, not only at beholding so many of those who are devoted to the profession of agriculture, and who are entirely dependent on it for the supply of all their wants, voluntarily debarring themselves from the easiest, the most agreeable, the cheapest, and the most effectual mode of acquiring knowledge in their profession—but at the short sighted views of those who are obviously not less deeply interested than the farmer himself, in producing that state of improvement, on the production of which the prosperity of all is alike dependent. Let every man but ask himself, what would be the effect upon the public prosperity, and on that of every individual of which society is composed, whatever may be his occupation, were the fertility of the land and the quantum of his annual production to be doubled, trebled or quadrupled—all must see at a glance, that the national wealth and resources would be in the same degree enhanced. The government would be enabled, with far less inconvenience to the people, to raise double, treble or quadruple the revenue which can now be collected, either for the purpose of defending the country against foreign enemies, improving it by roads, canals, &c., or for what is of still greater importance than either, the establishing and sustaining a system of Universal Education, by which, and by which alone, liberty can be perpetuated, the people elevated to that dignity and worth of which they are capable, and which it should be considered the first duty of every Republican Government to confer.

The farmer and planter would be benefited by receiving a treble, or quadruple reward for his labor, to be expended in supplying his wants, increasing his wealth, or promoting his comfort. The merchant, the lawyer and the mechanic, will be benefited by a double, treble, or quadruple ability in their customers to purchase their goods, or to reward them for their services; and above all, the laborer of every description, would be benefited by constant employment, and good wages paid in ready money. In a word, universal prosperity would overflow the land, and universal intelligence and increase of virtue, would enable and dispose the people so to use it, as to banish from the country by far the largest portion of that misery and distress under which mankind, in all ages and countries, have heretofore groaned, and which must continue to be their lamentable lot, until by an elevation of the intellectual and moral character of the mass of the people, they shall be qualified so to improve the recources which a benignant Providence has placed at their command, as to enable every one, by moderate labor, to acquire the necessaries and comforts of life. That such would be the ultimate effects of doubling, trebling, or quadrupling the products of the earth by the industrious exertions of the agricultural community, if guided and directed by intelligence, is too plain to require proof.

Would the general circulation of agricultural papers, by diffusing knowledge, and by continually presenting to the eye of the agriculturist, clear, unequivocal and demonstrative proof, that great and ample rewards are the sure and certain consequences of such exertions, have a tendency to stimulate the community to active and intelligent exertions? He who doubts this, must believe the gross and palpable absurdity, that the greater the knowledge a man possesses of the business in which he is engaged, the more will he be disqualified to pursue it with advantage, and that the more clearly and distinctly the prospect of reward is held out to the farmer for his labor, the greater will be his indolence.

With those who can believe these propensities, if any such there be, it would be vain and idle to reason—they can believe any thing which they wish—their error proceeds

not from the head, but the heart—what they want is not the capability, but the inclination to discover truth. To all others, of whatever character or occupatiou, we would say, If you believe that agricultural improvement would be thus beneficial to your country, conducive to the best interest of yourselves and your fellow citizens of every class and description, and that the wide and general circulation of agricultural papers would have a tendency to produce that improvement, do not patriotism, philanthrophy, and enlightened regard to your own interest all conspire to demand that you should exert yourself by every means in your power, by your example, by your exertions, by your instructions, and by your influence, to extend as widely as possible the circulation of papers entirely devoted to the diffusion of agricultural knowledge and the production of agricultural improvement—papers whose influence, while it may be productive of such incalculable good, can by no possibility be injurious to any human being?

We ask you, soberly, and deliberately, to consider the subject, and then to act in such a manner as reason, conscience, patriotism, and an enlightened regard to your own interest shall dictate. For ourselves, we entertain not a particle of doubt, that were some well conducted agricultural paper generally circulated and read in every neighborhood in the United States, its salutary influence would, in a few years, be clearly exhibited in the intellectual improvement of the people, in the increase of the national wealth and resources, and in the increased happiness and prosperity of all classes of community. To the production of such results we are not only willing but desirous of contributing our utmost exertions, and it is therefore, that we solicit all those that have it in their power, by the communication of agricultural knowledge, and by their exertions in promoting its diffusion to the widest practical extent, to afford us their aid and co-operation, we are fully sensible must the success of ours, and similar efforts, in a great measure depend.

Cut Worm.

In some years these larvæ are very destructive to the Indian corn, and of all the contrivances for destroying them, which we have seen, that of Parke Shee, of Delaware county, in Pennsylvania, is the most simple and the most expeditious. A pair of old wheels from a cart or wagon, are fitted with several projections like the cogs of a spur wheel in a mill, which are so formed as to impress in the earth a hole four inches deep. The smooth track which the wheel makes on the soft ground, induces the worm in its nocturnal wanderings to follow on till it tumbles into the pit. It cannot climb out and the hot sun destroys it.—*Farmer.*

The Dairy—No. 2.

The milk from which butter is to be made, may either be put at once into the churn, and left there to send up the cream, or it may be made to cream in milk dishes, and the cream alone churned. The last is generally considered the best mode; and in carrying it into effect, the milk, being drawn from the cow, is to be strained into the creaming dishes, which never should be more than three inches deep, and of about a gallon and a half, or two gallons in capacity. In general, the best cream will be fit for removal in seven or eight hours, though for ordinary good butter, it may stand twelve hours; but where the very best butter is wished, and such arrangements are formed as admit of converting the milk to cheese, or some other use, when it is sweet it may be separated after standing only two or three hours. In performing the operation, first pass the cream knife round the edges of the vessel, to separate the adhering stratum of cream, and then draw it to one side; lift it off with the skimming dish, and put it in the cream bowl to be carried to the cream barrel. Where quantity more than quality is desired, the whole of the milk is churned without separating any cream; the milk is kept in the churn, or in large barrels, for two or three days, till it begins to get sour.

The operation of churning, where the cream and milk are both to be agitated, is necessarily tedious and laborious; but a great weight of butter is undoubtedly obtained, the quality and flavor of which will depend a good deal on the peculiar properties of the milk. In the process of churning, great nicety is required; a regular stroke in plunge or pump churns, and a regular motion in those of the barrel or turning kind, must, if possible, never be deviated from. A few hasty irregular strokes, or turns, has been known to spoil what would otherwise have been excellent butter. Nothing is more easy than the process of making butter, where the cream has been duly prepared.

The best time for making butter, during summer, is early in the morning, before the sun acquires much power; and if a pump churn be used it may be plunged a foot deep into a tub of cold water, where it should remain the whole time of churning, which will very much harden the butter. During winter, if necessary to churn near the fire, care should be taken to prevent the heat from acting on the wood of which the churn is composed; otherwise it would impart a rancid taste to

the butter. As soon as it is made, it must be separated from the milk, and put into a clean dish: the inside of which, if of wood, should previously be well rubbed with common salt, to prevent the butter from adhering to it. The butter should then be pressed and worked with a flat wooden ladle, or skimming dish, having a short handle, so as to press out all the milk that may be lodged in the cavities of the mass. A considerable degree of dexterity, as well as of strength, is requisite in this manipulation: for if the milk be not entirely removed, the butter will infallibly spoil in a short time; and if it be much worked, the butter will become tough and gluey, which greatly debases its quality. This effect is also occasioned by pouring cold water on the butter, for the purpose of washing it; a practice entirely useless, as the butter can be effectually cleared of the milk in the way we have stated.

In salting or curing the butter, the use of wooden vessels is preferable. These should previously be rendered as clean and sweet as possible, well rubbed with salt, and the cavity between the bottom and sides filled with melted butter. An excellent composition for preserving butter may be made, by reducing into fine power, and carefully mixing together, sugar and nitre, of each one part, and two parts of the best common salt. Of this composition, one ounce should be thoroughly mixed with every sixteen ounces of butter, as soon as the latter has been freed from the milk; and the butter must be immediately put into the firkin, being pressed so close as to leave no air holes, or any kind of cavities within it. The surface must be smoothed; and if a day or two be expected to elapse before more can be added, the vessel must be closely covered up with a piece of clean linen, on which should be laid a piece of wetted parchment, or (if this is not procurable) with a piece of fine linen, dipped in melted butter, exactly to the edges of the vessel all round, so as to exclude the air as much as possible.

When more butter is to be added, these coverings are to be removed; the butter is to be applied close to the former layer, pressing it down, and smoothing it as before, till the vessel is full. The two covers are then to be spread over it with the greatest care; and a little melted butter poured all round the edges, so as to fill up every part, and effectually to exclude the air. A little salt may then be strewed over the whole, and the cover firmly fixed down. Butter thus secured, does not taste well till it has stood at least a fortnight after it has been salted. After that period it acquires a rich marrow taste, and will continue perfectly sweet in a moderate climate, for many years. If it be quickly consumed, it may be taken up as wanted, without any other precaution than that of keeping it carefully covered up; but if it is to be used very slowly, and it acquires a rancid taste, from exposing it to the air, a strong brine of salt (strong enough to float an egg) should be poured, when cold on the surface of the butter; and although the quality of the latter will be somewhat injured by the action of the water, yet that is a much less evil than the slightest rancidity would occasion.

When butter is to be exposed to the heat of a warmer climate, it should be purified by melting before it is salted and packed up. For this purpose let it be put in a proper vessel, and this immersed into another, containing water. Let the water be heated until the butter is thoroughly melted; let it continue in this state for some time, when the impure parts will subside, leaving at the top a perfectly pure transparent oil. This, when it cools, will become opaque, and assume a color nearly resembling that of the original butter, being only somewhat paler, and of a firmer consistence. When this refined butter has become a little stiff, but while it is somewhat soft, the pure part may be separated from the dregs, and salted and packed up in the same manner as other butter; it will continue sweet much longer in hot climates, as it retains the salt better than in its original state. It may also be preserved sweet without salt; by adding an ounce of fine honey to every pound of butter, and mixing them thoroughly, so that they may be perfectly incorporated. A mixture of this sort has a sweet, pleasant taste, and will keep for years without becoming rancid.

From the New England Farmer.

Olden time in Pennsylvania.

As introductory to shewing the Rise and Progress of the best of the Agriculture and Gardening in the State.

Pennsylvania had a small beginning. King CHARLES' Patent, or Charter to WILLIAM PENN is dated March 4, 1680. That summer he sent people and materials, with instructions to select the most suitable site for a city and to build him a house. They fixed and built his house, and laid out the city 25 miles higher up the river, than where Philadelphia was built; another party fixed and laid out the place of the city about 10 or 12 miles below; that is yet called *Old Philadelphia.* WILLIAM PENN remained in England, and obtained another charter from JAMES, Duke of York, for the state of Delaware, then called the *Territories of New-*

castle, *Kent* and *Sussex*; that charter bears date the 14th of August, 1682. After that, WILLIAM PENN sailed for his wooden country. They had a tedious voyage; too much crowded with passengers; and numbers died on the way with the small pox.

My grandmother, who died at my father's the 14th of February, 1773, supposed to have been upwards of 100. She retained her memory and faculties to the last; had no learning or knowledge of dates: could talk Indian before she could English, as she had been brought up in a family of the *Swedes* that first settled on the Delaware.

She used often relate her being present and seeing WILLIAM PENN first land on *Sweed Hill*, near the Navy Yard, where they had a church, before there was a Philadelphia, (and yet have one there;) that she was present the next day at his treaty with the Indians, under the noted Elm Tree, where a monument is now erected. WILLIAM PENN lived in his house 25 miles above Philadelphia for two years, then returned to England. He and his council having fixed the site for Philadelphia, where it now stands, for the advantage of both rivers. The Indian name of the place was *Cockaquanunk*, signifying a Grove of Pine Trees. My aged grandmother used to relate the great sufferings of many of the first settlers for provisions; that had they not been supplied by the kindness of the Indians, many would have starved and died.

The first settlers were from England, Wales, and Ireland; most of them had either been mechanics or day laborers; few had the use of an axe, or any knowledge how to clear or cultivate their land, only as taught by the Indians. WILLIAM PENN had great trouble in England with the revolutions of the government; that he was absent from Pennsylvania about twelve years, during which time his country filled slowly with various sects and professions of people. When he came the second time, he built a brick house in Philadelphia, that is yet standing, and since my memory occupied as a tavern, or house for eating oysters. The country did not settle or improve in agriculture as fast as WILLIAM PENN wished. He only remained in Philadelphia about two years, when he returned again to England. He had heard of some religious sect of people in Germany who had conscientious scruples against bearing arms, and that they were persecuted for their religion. He paid a visit to several parts of Germany, and personally invited them to come and settle in his new country, making to them two special concessions.

1. They should have liberty of conscience in religion.

2. They should be exempt from military requisitions:—which have not been observed.

When they began to arrive, or in what numbers, I have no account before me. Perhaps but few came during the life of WILLIAM PENN, who intended and prepared to come to this country a third time, but was struck with the palsy, declined with weakness, and died in the summer of 1618, aged 72.

From the Moravian history it appears that *Nazareth* and *Bethlehem* were begun in the year 1740. And a large majority of the German emigrants were of the *Menonist* Religion. History says that 54 ships' loads of German emigrants arrived in Philadelphia in one summer. All classes of the inhabitants considered them an acquisition to the country; and to encourage the emigration, the benevolent people of all classes contributed largely to render their landing and first accommodations comfortable. The Society of Friends appointed suitable agents to advise and assist them to land and places of residence; the wealthy merchants that had large quantities of wild lands, were ambitious who should best accommodate them, either for ready pay or on credit; amongst whom WILLIAM ALLEN, Chief Justice of the Province, was the most conspicuous. The State Legislature tried to put a word in. Amongst the rest I see that the 26th of January, 1750, they passed a law to prohibit importing too many Germans in one vessel, and limit the space of each, as follows:

1. For every passenger of 14 years, or older, a space of 6 feet long, and 18 inches wide.

2. For all under 14 years of age, two in that space.

The war between England and France put a stop to that great flood of emigration; but the numbers that came before the war were immense. In such a vast multitude, a variety of character may be expected. Some were men of learning and science; some could pay for their passage, and for their land; some paid for their passage, and bought land on credit; such as could not pay their passage were called *Redemtioners*, and sold for four years for their passage money. The purchasers were generally the sons of the first emigrants from England, that knew but little of farming or gardening. The Redemptioners had been used to digging their living out of small pieces of land. The purchasers preferred taking a family, man, wife and children; and I have heard old men say that their general character was strictly honest, industrious, and inoffensive; that nine times out of ten they knew the business better than their master. The women were

laborious, skilful gardeners. Being so poor they had but little to carry. They always took their bundles of garden seeds that they had brought from Germany and greatly improved gardening, both in quality and a greater variety of vegetables. The great emigration from Germany before the French war was the making of Pennsylvania.

SAMUEL PRESTON

Last Leaf of a Farmer's Leger.

BY NIAGARA.

Last leaf of a Farmer's Leger for 1835, or a recapitulation of farm accounts. This "last leaf," or "recapitulation," is obtained by the following course:

1st. I make, on a sheet of drawing paper of good size, a map of my farm, drawing lines to designate fences—(then let a little girl paint these lines after the fashion of an engraved map)—number every field or division of the farm, and let these numbers be the only names by which the fields shall be designated.

2d. Every evening before retiring to rest, in a regular account book procured for the purpose, (called day book,) I charge the expenses of the day to the field or fields where the work has been done that day, and with the same care and precision as a merchant charges his goods, with such remarks on the description of the work and the weather as I may think of consequence.

"1835. No. 4. Dr.

May 6, To 2 teams and drivers dragging in barley, ... $3 00

3½ bushels barley sowed today, (east part,) at 5s. 2 19

Sowing same, (2 bushels to the acre,) 0 25

The north-east part of this field ploughed last fall and the barley sowed, dragged in and rolled without further ploughing.

Weather pleasant in forenoon. P. M. cloudy, N. W. wind, and very cold,—frost this morning."

The above is a sample of the manner in which I keep my farm accounts.

3d. During the long evenings of the fall season, I put all these accounts into a Leger of suitable size, kept expressly for *farm accounts*, and no other. By the close of the year I will have my accounts all posted up and footed. Then,

4th. Carry these footings, with descriptions, results, &c. forward to "the last leaf of the Leger" for that year, and I have, as will be seen, the kind of crop on each field, the expense of cultivation, the amount of the crop, the profits of each field, and the profits per acre, &c.

Now, Mr. Editor, if all our farmers should follow a similar course from year to year, there would be an immense amount of agricultural matter committed to paper, and if never made accessible to the farming community by publication, it would at least be accessible to the writer, and to his posterity. And might it not possibly be of service to them? Would they not ascertain the most profitable crops, and the most profitable manner of cultivation—the proper quantity of seed—time of harvest—and, *especially* whether there is any particular advantage gained by "*sowing in the moon!*" &c. &c.

Recapitulation of Farm Accounts for 1835.

Nos. of Lots.	Acres	Kind of Produce.	Expenses.	Receipts.	Profits.	Profits per Acre.
No. 1 . .	14	Hay, wheat and corn, .	$59 89	$207 38	$147 49	$10 35
2 . .	10	Hay, ...	24 00	153 00	129 00	12 90
3 . .	5	Hay, ...	10 50	78 35	67 85	13 55
4 . .	8½	Corn, barley and beans,	65 28	190 76	125 48	14 70
6 . .	6¼	Wheat, ...	52 10	200 35	148 25	22 80
9 . .	4	Hay, ...	8 63	40 00	31 37	7 84
10 . .	10	Wheat, ...	73 25	335 30	262 05	26 20
11 . .	16½	Wheat, hay and oats, .	58 07	239 57	181 50	10 91
Orchard,	5	Fruit and peas, . . .	36 65	182 56	145 91	30 68
Fruit yard	1¼	Potatoes and corn, . .	21 76	62 20	40 74	32 10
Garden, .	¾	Variety, ...	19 82	30 00	10 18	20 36
Total, .	81¼	Acres.	$429 95	$1719 77	$1289 82	$15 82 aver.

But perhaps the above would be more intelligible to some, if put in the following form, to wit:

38¼	tons hay, at $12. . .		$462 00
48	bushels peas, at 8s. . .		48 00
109	" oats, at 44 cents, .		47 96
129	" corn, at 6s. . .		96 75

120 bushels barley, at 6s. .	90 00
124 " potatoes, at 3s. .	46 50
630 " wheat, at 8s. 9d. .	689 06
12 cart loads pumpkins, at 8s.	12 00
14 bushels white beans, at 12s.	21 00
12 " onions, at 6s. .	9 00
60 " mangel wurtzel, at 2s.	15 00
Straw sold at the barn, .	37 00
Fall feed sold, . .	23 50
Apples converted into pork, .	37 50
Apples sold, . . .	85 50
	$1719 77

EXPENSES AS FOLLOWS:

For seed grain,	$59 91	
" seed clover,	15 45	
" plaster,	21 50	
" team & manual labor,	307 09	
" manure,	26 00	
		$429 95
Profits,		$1289 82

Although the foregoing may be called a fair business, yet I am fully persuaded that the time is not far distant, when the profits of farming will double the foregoing statement, and this by improvements which are every year made and making in agriculture and agricultural improvements.

The first great secret at which we should aim, is the perfection of the soil, in nutritive qualities, by the application of various manures, and clearing it from stumps, old logs, roots, stone, and all manner of foul seeds.—And the second is, the introduction and use of the most approved and labor-saving implements; and third, a judicious rotation of crops of the most profitable kinds. And here I cannot forbear—although so much is communicated in your useful paper on the subject of clover almost every week—I say I cannot forbear entering my decided conviction of the utility and very great importance of the general cultivation of this soil enriching grass. And this I do from actual experiment, one case of which was made on lot No. 10 in the foregoing recapitulation. That field is 80 rods square. In 1833, it was in wheat, about 18 bushels per acre.

In the spring of that season I sowed two acres through the middle of the field to clover. In the following spring, 1834, I sowed the south 4 acres to peas. The next 2 acres was the clover strip. The next 2 acres I sowed to barley, and the remaining 2 acres to peas. In September the whole field was sowed with wheat at the same time. This was done purposely as an experiment, and the difference in the crop was strikingly manifest. The result of the experiment was about as follows:

That part which was after barley was the poorest, very considerably, say 20 bushels to the acre. That after peas a medium crop, say 25 bushels to the acre. That after clover was very heavy—at any rate more than 40 bushels to the acre. The whole field averaged about 30. I ought to have stated before, however, that 2 acres of the peas were sowed with plaster at the time of sowing peas. No material difference in the pea crop, but the wheat on that part was at least 25 per cent. larger than that which had not received the plaster.—*Genesee Farmer.*

Selection of Seed Wheat.

The selection of good seed of any kind, to plant or sow, is an object of no small importance to the cultivator, and we accordingly find farmers, who are careful, pursuing some plan or other which shall ensure them the best seed for their sowing. In case of wheat, some select the largest and best ears or heads which they can find; others throw up their wheat in a windy day, and select that which is blown the least distance, as being the heaviest and most plump. We think, however, that the best plan, and the one which will be most sure to give the heaviest grain, is to put it into some thick liquor, and take those kernels which usually sink to the bottom. Liquors may be made sufficiently thick to bear an egg, by various substances in them—by potash, as in common lye, by soap, or by salt. Darwin recommends a solution of salt sufficiently strong to bear up an egg, and the wheat plunged into this. This might be done at the time of sowing, or even before, if the wheat wet in it be carefully dried; but at sowing time, when it is common to soak or wash wheat in lye, it would be a small matter to make the liquor as strong as possible, and thus select the heaviest and best of your seed while preparing it for the ground. It would be but a little labor to test the plan on a small quantity, and ascertain the facts concerning it.

On the Manufacture of Beet Sugar in the United States.

The fact that crystalized sugar could be obtained from the beet root, was first noticed by Margraff, in 1747, but excited little notice till 1790, when Archard, a German chemist, directed the men of science in France to that subject. A report by the Institute, about this time, states that raw sugar so produced costs about 16 cents per English pound. In 1810, colonial sugar had become so dear, that the government directed their attention to the process, but, notwithstanding this, it was still so imperfect as to be given up, with the ruin of several manufac-

turers, when the peace of 1815 admitted the free entrance to France of colonial sugar.—Important discoveries, among others, that of Mr. Taylor, for boiling sugar by steam, were made in the process, and the number of manufactories gradually increased, so that, in 1829, there were at least one hundred, from which were produced yearly, 5,000 tons of sugar, worth $266 per ton, or $1,330,000; the profit of which, Mr. Taylor estimates at $66 60 an acre; but he adds, "I am convinced the process may be so far improved, that sugar will be made in France from the beet root at 36*l.* per ton, which will increase the profit to 24*l.* an acre." After showing that the beet root succeeded best in the northern departments of France, and that, of course, it can be grown as well in England as on the Continent, he concludes, that though the price of land and labor, be much lower in France than in England, yet that the balance of skill in favor of the latter country, places it on a par with France, in point of the profits to be obtained from making sugar from beets. He adds, "with respect to *price of produce*, the advantage will probably be in favor of the English farmer; for although the price of sugar is about equal in both countries, yet it is not sugar alone that is produced from the beet root which is cultivated: the pulp of the root, after the juice is pressed out, is excellent food for both bullocks and sheep, and I have seen beasts which have been bought in at 5*l.* per head, fattened upon it and sent to market in three months, and sold for 11*l.*

The value and importance of this part of the business will be duly estimated, when it is known that the pulp from each acre of beet root, will fatten a bullock, and that the farmer will have as much manure for his other crops, as if he had grown turneps on the same land; and, of course, the same rotation of crops may be continued as is now found most benefical. During the time of Bonaparte, the produce of sugar was about three per cent. on the root; now, as much as five per cent. is generally obtained; and as the beet root actually contains eight per cent. I think I have good ground for saying, that the process admits of further improvement. Mr. Philip Taylor, an English gentleman, residing in Paris, is the inventor of the mode of boiling sugar by steam, for which he took out a patent in 1817.

A late French publication on this subject says that the manufacturer buys his beets of the farmer at 16 francs for 1,000 kilogrammes. A kilogramme is 2 1-5 lbs. averdupois; 1000 kilogrammes weigh 2,200 lbs. averdupois.

Beets, by actual analysis, contain 10 per cent. of saccharine matter. The manufacturer obtains 6 per cent. for good brown sugar—he lives in expectancy, by future improvements, of 8 per cent. or more. 1,000 kilogrammes produce him 1-6th, or 60 kilogrammes of marketable brown sugar, equal to 132 lbs. averdupois. The manufacture of 1,000 kilogrammes costs 12 francs; from which deduct 3, being the value of the residue as food for cattle. Hence 132 pounds of saleable sugar can be obtained by the manufacturer, at the expense of 25 francs. A franc may be considered at 20 cents, and as there are 20 sous in a franc, a sou is one cent, or one half penny sterling. The French writers say that it costs 5 sous per French pound; which Kelly in his Cambist, states at 7561 grains, and also at 7717 grains. This calculation brings the cost of marketable brown sugar to about 4¼ cents per pound averdupois.

The beets in this country, particularly the north part of Pennsylvania, are most luxuriant. In France their yield per arpent, which is 1-60th more than our acre, is an average of 15 tons per acre at most. The white or Silerian Beet ("Beta Alba")—the sugar beet of France—has been raised within 7 miles of Philadelphia, and produced much over this. William Audenried, Esq. of Schuylkill county, Pennsylvania, has raised on his farm, of this beet, the enormous quantity of 62½ tons to the acre. We are informed by others, who are growing the seed which has been imported and distributed so extensively through the country by the "Beet Sugar Society," that they are in expectancy of producing a yield equal to the above.

Judge BUEL says, the fact seems to be this, that beet sugar, equal to our double refined loaf, which now sells in the market at 18 and 20 cents per pound, can be profitably sold in France, by the producer, at nine cents per pound, or at half the price of cane sugar. It follows as a matter of course, for bating the difference in labor, we *can* produce it here as cheap as they can in France, that the culture of the beet, and the manufacture of beet sugar, can be rendered a *profitable business* in this country. Our soil and climate are well adapted to the beet; and in the interior, in particular, where the price of foreign sugar is enhanced by the charges of transportation, beet sugar must ere long be among the staple products. As an offset to the difference in labor, we have an advantage in the cheapness of land.—Chaptal's estimates are predicated on a rent of 40 francs (7 dollars 60 cents) per acre.

Chaptal states his average product in beet roots at 40,000 pounds the hectare (which is 2 acres, 2 rood, 35 perches, English;) that in his establishment he operated upon 10,000 pounds in a day; that this quantity (10,000 lbs. roots) produced, of

1	Refined sugar, 187 lbs. worth	210	francs.
2	Middling do. 60 lbs. worth.	67	50 c.
3	Trimmings, 1,000 kilogrammes, (fed) worth	2	50 c.
4	Marsh, (fed to stock) 1250 kilogrammes, worth	30	"
5	Molasses, worth,	12	"
		322	francs.

Equal to about $61 on the product of one-fourth of the hectare, or something more than half an acre of land. The expense of cultivating an acre is stated at 133 francs, about $25, which includes 40 francs for rent and 10 for taxes, and leaves about $15 75 for cultivating, digging, transporting and storing the crop. He states the expense of cultivating and manufacturing 10,000 lbs. roots, including all charges, at 192 francs, about 36 dollars, leaving as a profit on this quantity of roots, about $25, say $35 the acre, clear profit. Upon 1,200,000 lbs. of roots, the average produce of three hectares, he estimates a nett profit to the manufacturer, after deducting interest on capital, repairs, &c., of 6650 francs, about $1,260.

After penning the above, we received the interesting letter of M. Le Ray de Chaumont, showing the importance of beet sugar as a household manufacture.

Paris, April 15, 1836.

"*My Dear Sir*,—A long space of time has elapsed since my last communication to the State Agricultural Society. Meanwhile I have not had a moment out of mind the promise I made in it, to resume the pen as soon as I should have something worthy of being recommended to their attention. It is long since I have been convinced of the vital importance for France of raising the beet root and manufacturing it in sugar. Some time after my arrival in the United States, some of my friends wanted me to encourage it in America; one of them, chiefly, who had seen my successful establishment at my estate in France, and who knew I had received from the French government the gold medal offered for the best making of the best sugar;—but I could not recommend it for the United States, when I had witnessed how few had succeeded in this country, even during the reign of Napoleon, when sugar was four times the price it is now. Indeed, after that time the working of the beet sugar was entirely given up in Europe, except in France, where even I was almost the only one who would not give up so easily the hope of the great advantages that discovery was to offer one day or another, to a great part of the world. The benevolent monarch who succeeded the great Emperor, was soon persuaded that there would be a great benefit for France in encouraging this new branch of agricultural industry. However, nothing more was found necessary to accomplish the object than a simple honorable reward for the most successful; for if the making of beet sugar was really useful, it would soon be proved by the benefits the manufacturers would make. The price of sugar had fallen more than one-half, and many who had invested great capitals in the undertaking, met with very serious losses. However, several continued, and new improvements were keeping pace with, and even overbalanced the disadvantages of the constant lowering in the price of sugar.

But, sir, I could not give any encouragement in the United States to similar undertakings before the improvements in the manufacturing of beet sugar were made. I am persuaded that it would have been the cause of complete failure in the attempts made by any one till very lately, though it had given profit to some great establishments in France for a few years past. This I will demonstrate when I enter into more detail.

For the present moment, what I have said above will be sufficient to answer the double purpose of justifying my reserve upon this, so interesting subject, and deserving at the same time the confidence I wish to attain now, when I recommend the cultivation in the United States of the sugar beet, without any further hesitation, for the purpose of manufacturing it into sugar. I am convinced that it will be a very advantageous agricultural pursuit in all parts of the United States, and chiefly in the middle and northern states. The great difference in the price of labor between France and America, which in the account of profit and loss, has produced a balance against the United States in the contemplation of this operation, is now overbalanced by the new discoveries and improvements in the fabrication of the beet sugar. To them, add in favor of the United States, the cheapness of the soil for the cultivation of the beet, and of the fuel for manufacturing the sugar. These advantages are to be found in all the new states, and some considerable parts of Pennsylvania and New York. There, also, they will have on their side, in uncommon abundance, the fine water powers, which more than any thing else remedy the difference in the price of handwork between Europe and America.

But, sir, while I was admiring here, in the splendid establishments of this new industry, their fine machinery and their improved chemical processes, I was lamenting that the small proprietor or the farmer could not employ directly his produce by manufacturing himself. I am but just now perfectly satisfied that he can do it, and that with very inconsiderable expense, and without hiring any

help; but simply with that of his family. I will quote the particular instance of a farmer in the northern part of France, (near Valenciennes,) who has received a medal from the Royal and Central Agricultural Society, for having established on his farm one of the first small beet sugar manufactories, where he makes daily, without any assistance, but that of his family, 100 pounds of sugar fit for family use without further preparation. The whole house room consecrated to that purpose, is a room 16 feet square, and a cabinet 10 feet by 12.

Now, sir, you can undoubtedly appreciate at once all the advantages that a farmer can reap in cultivating and manufacturing the sugar beet. It will be greater yet for those who have, as in the north of Pennsylvania and New York, the maple sugar. The making of beet sugar may begin in October, and end commonly in March; it is just at the moment when the maple sugar is more commonly made; so that the same implements will answer for both manufactures, and the farmer will have employ for his family during the months when they have most leisure.

The Royal and Central Agricultural Society have just offered several handsome premiums, for whoever will communicate within this year the best methods for manufacturing the beet sugar on small farms. This has given me the idea of not waiting for my arrival in America, for recommending immediately the cultivation of the beet, so that experiments may be made this fall and winter, by employing some of the best systems discovered here, and such as the inventive genius of Americans will not fail to discover.

I remain, my dear sir, with sincere regard, yours,

LE RAY DE CHAUMONT.

Beet Sugar.

The immense benefits to be expected from introducing the Sugar Beet into the United States, had for a considerable time, occupied the attention of JAMES RONALDSON, Esq.: when in the month of January last he was introduced to Mr. James Pedder, who had been long known to John Vaughan, Esq., who with Mr. Jacob Snider, Jun., now took a lively interest in the concern, and after several interviews it was determined to despatch Mr. Pedder to France, with the view of obtaining accurate information on all subjects, connected with the culture of Beet and the uses to which it is applied. The responsibility and expense of this undertaking were assumed by Messrs. Ronaldson, Vaughan and Snider, in the confident belief that they would be sustained by their countrymen in this laudable undertaking. It was important that Mr. Pedder should be despatched immediately in order to witness the process of making Sugar in France, and to send out seed in time to be planted in the United States the present season. Mr. Pedder left Philadelphia on the 8th day of February and his mission has been attended with the most gratifying success, nearly 600lbs. of seed having already been received, and portions of it distributed through various parts of the country. Several patriotic individuals have made contributions towards defraying the expenses of this undertaking in sums of from ten to fifty dollars each. But the amount yet received is inadequate to the expenditure. An association has been formed, of which James Ronaldson is President; John Vaughan, Vice President, and James Snider, Jun., Secretary and Treasurer. The object of this society is to collect and disseminate information for the benefit of the community generally without any view to pecuniary emolument.

Beautiful Extract.

We most cheerfully present our patrons with the following beautiful and eloquent extract from Mr. Biddle's Address to the Philadelphia Society for promoting Agriculture,—we sincerely hope it may be carefully perused by *all* our readers, but more especially by that class for which it is designed.

"If I have failed to prove," says Mr. Biddle, "that the pursuits of agriculture may be as lucrative as other employments, it will be an easier task to vindicate their pleasures and their importance. I need not dwell on that retirement, one of the purest enjoyments of this life, and the best preparation for the future, on those healthy occupations, on that calmness of mind, on that high spirit of manliness and independence, which naturally belong to that condition. These are attractions which must have deep roots in the human heart, since they have in all times fascinated at once the imagination, and won the judgment of men. But I may be allowed to say, that, in this nation, agriculture is probably destined to attain its highest honors, and that the country life of America ought to possess peculiar attractions. The pure and splendid institutions of this people have embodied the brightest dreams of those high spirits, who in other times and in other lands, have lamented or struggled against oppression; they have realized the fine conceptions which speculative men have imagined, which wise men have planned, or brave men vainly perished in attempting to establish. Their influence in reclaiming the lost dignity of man, and inspiring the loftiest feelings of personal in-

dependence, may be traced in every condition of our citizens; but, as all objects are most distinct by insulation, their effects are peculiarly obvious in the country.

"The American farmer is the exclusive, absolute, uncontrolled proprietor of the soil. His tenure is not from government. The government derives its power from him.—There is above him nothing but God and the laws; no hereditary authority usurping the distinctions of personal genius; no established church spreading its dark shadow between him and heaven. His frugal government neither desires nor dares to oppress the soil; and the altars of religion are supported only by the voluntary offerings of sincere piety. His pursuits, which no perversion can render injurious to any, are directed to the the common benefit of all. In multiplying the bounties of Providence, in the improvement and establishment of the soil, in the care of the inferior animals committed to his charge, he will find an ever varying and interesting employment, dignified by the union of the liberal studies, enlivened by the exerise of a simple and generous hospitality. His character assumes a loftier interest by its influence over the public liberty. It may not be foretold to what dangers this country is destined, when its swelling population, its expanding territory, its daily complicating interests shall awaken the latent passions of men, and reveal the vulnerable points of our institutions. But, whenever these perils come, its most steadfast security, its unfailing reliance, will be on that column of landed proprietors—the men of the soil and of the country—standing aloof from the passions which agitate denser communities, well educated, brave and independent, the friends of the government without soliciting its favors, the advocates of the people without descending to flatter their passions; these men, rooted like their own forests, may yet interpose between the factions of the country, to heal, to defend, and to save."

From the Quarterly Journal of Agriculture.

The Culture of Rhubarb.

My notice of this exquisite vegetable shall be comprised in a few lines; but these, I trust will avail to extend its culture more and more; for any thing more productive, salubrious, profitable, and expressly suitable to the purposes of the cottager, can scarcely be found in the entire list of vegetable productions. A few years only have elapsed since the rhubartic hybrid, *green* rhubarb, was cultivated for tarts, and held in very slight estimation: but since the introduction of the larger (giant) varieties, the demand has increased with surprising rapidity. Of the two sorts which I earnestly recommended, one is called, if I mistake not, *Radford's Scarlet Goliah;* and the other is a small *red* variety, which is crimson throughout when boiled or baked. These will supply the table from April to August, and suffice for every purpose.

Culture.—Let the ground be prepared precisely as for asparagus beds. Select clean offsets, with two or three bold eyes: the first week in March is a very suitable season.—The eyes or buds of the Goliah will be of a deep, rich red, hence its name: the leaves, however, and stalks are green, though of different hues, and the latter are spotted and streaked with red. In the smaller pink variety the red tint prevails throughout.

The plants of the great Goliah should be set firmly in the soil, five feet apart, or five feet one way and four feet another: the smaller kind may be set three feet asunder, plant from plant, giving a free watering to each to settle the soil among the roots. Dry weather, an open condition of the ground, and a temperate unfrosty state of the air, should be preferred. When the growth becomes established, the ground must be kept free from weeds; and if dry weather supervene, water ought to be freely given round the roots, two or three times, with intervals of four or five days.

Not a leaf or stalk ought to be touched during the first year; and in autumn, when the leaves are all decayed, they should be laid in little trenches formed along the centre of the spaces, between the rows, sprinkled with a handful or two of salt, and covered with the earth that had been digged out. Thus the plant will itself furnish a portion of the manure that will be annually required. As winter approaches, a coating of well decomposed stable manure or leaves, or a mixture of both, two or three inches deep, should be laid round each plant, to the extent of two feet; and in the open weather of February, and March the whole bed must be forked over.

As a proof of the excessive productiveness of the *Scarlet Goliah*, I need only mention, that, in the 2d week of March, 1831, twelve plants were set in ground prepared for asparagus. In June, the leaves met, and the whole plot was covered. In 1832, the plants yielded profusely, many leaves measured above a yard and a half over the surface, the foot stalks being an inch and a half broad, and from two to three feet long. The outside leaves were, as required for use, stipped off by an oblique pull, not cut; the family was amply supplied till July and August, and

yet the plants increased; the neighbors also were furnished with *leaves* throughout the summer, and with *offset plants* in the succeeding spring. During the two past seasons the root stocks increased to such a size, that when it became needful to remove some, it required a barrow to contain the weighty mass that was raised, after great labor, from the soil. If any one try the experiment in a favorable soil, and with any thing like judicious management, he will scarcely fail to discover that the growth and production of the plant will exceed every demand that can be justly made upon it.

From the New York Farmer.

Successful Farming.

We ask the attention of our readers to the following communication of Mr. BEMENT, of Albany. It ought certainly to convince those who ridicule the idea of deriving instruction from *agricultural publications*, that they are not without their use and value. They must certainly admit, that even a *printer*, with the aid of agricultural papers, good sense, and proper care, can at least "make that two ends meet," which is as much as many do who have enjoyed the superior advantages of a long apprenticeship to agricultural labor—and which they seem to think renders further instruction unnecessary—whereas in truth they are then only just prepared to learn by *reading*, *reflection*, and *experiment*.

The "lesson" of the "grandfather should be learned and practised upon by every farmer in the country.

Mr. Bement is always ready and pleased to exhibit his stock of cattle, sheep, and hogs, to those who take an interest in such animals, and also to explain his mode of farming; and he enjoys superior advantages for *demonstrating* the excellence of the productions of his farm, in serving them up, in superior style, at his HOTEL in State street, to those who are so fortunate as to make his house their home while in Albany.

MR. MINOR:

SIR,—In my letter to you of January 27th, 1835, I said, "my farming operations have necessarily been very much limited," &c. &c. Another season has passed, and I embrace a few leisure moments to give you some account of my success, on the same farm; not, however, in the same way of boasting, but to show you that I have not been unsuccessful. The farm consists of 110 acres, and put down in the tax-book second and third rate land—80 acres in cultivation, and the remainder wood, of which I only had the privilege of cutting for fencing. Rent four hundred dollars per annum.

It was considered by many, as a very high rent,—a very hazardous undertaking, and that I never should get enough off to pay rent and meet expenses; which, in fact, was the case the first year, as I was minus two hundred and thirty dollars. I could, however, account for it in repairing, and altering stables for my cattle, building pig-stye, digging well, draining, repairing, and making new fences, drawing manure from the city,—the benefits of which I received the next year. Of my success you can form an opinion from the statement below. For certain reasons I have withheld the nett proceeds. Suffice to say, I have made up the deficient, and added to my capital.

I am a mere novice in farming—I am by profession a printer—it is new business to me—I have much to learn, and for what little I do know, I am indebted to agricultural publications, and lessons derived from Mr. Buel, and other eminent farmers who I am proud to number among my acquaintances.

The question is often asked me, "Where did you imbibe your notions and taste for farming?" My answer, is, "When a boy eight or nine years of age, I used to "ride horse" for my grandfather, to plough corn; and if, perchance, I should allow 'old Dobin' to tread upon a hill of corn, look out for a lump of earth at the urchin's head!!!" He is now dead and gone—but the lessons he taught me are still fresh in my memory. He was a good farmer—and had a time for every thing, and every thing must be done in time—a place for every thing, and every thing in its place. His buildings in good repair. His stock fed regularly, and at regular hours; not feeding surfeit one day and half starving them the next. In short, he had a system and followed it strictly—and *made money by farming too!!* His pork-barrel and granary were never empty. He never ran up accounts with the merchants, nor run in debt because his credit was good. He lived to a good old age; and died, as he lived—an honest man. Peace to his ashes.

On looking over my sales book, I find the following articles passed to the credit of the farm:—

Cattle, consisting of 1 cow and 9 calves, (Durham short horn,)	$825 00
Sheep, consisting of bucks, ewes, and lambs, for breeding,	615 00
Pigs, principally for breeders,	276 00
Milk, sold besides feeding the calves,	157 00
Pasturing cattle exclusive of my own stock,	136 13
Potatoes sold for family use,	612 69
Ruta Baga turneps, 486 bushels at 50 cents per bushel,	97 40

Barley, 100 bushels at 80 cents,	80 00
Millett, including the straw, which I think equal to hay,	71 00
Buckwheat, 24 bushels, at 50 cents,	12 00
Oats, 150 bushels, at 50 cents,	75 50
Hay, 12 tons, at $17 1-2 per ton,	210 00
	$3,171 02

In the above I have made no account of what remains on hand nor of what was consumed on the farm. My potatoe crop was a good one, amounting to over 2300 bushels, and all of the choicest kinds, for table use, and which are less prolific than the more common sort. My hay crop was not as good as the year previous; and I was not alone in that, for very few of the best cultivated farms in this county gave over half a crop.

In July last, I purchased of S. Hawes, Esq., a farm consisting of 184 acres of land, formerly the property of Judge Spencer, lying 3 1-2 miles west of this city, where, should my life and health be spared, my future efforts shall be directed, principally in rearing superior animals for sale—such as cattle, sheep and swine; and hope, by unremitted care and attention, to deserve a share of public patronage. My cattle are of the pure "Improved Durham Short Horned" breed; sheep of the "South and Hampshire Down;" "New Leicester," and "Merino" breed; swine of the "Imported Berkshire," "Improved China,"—some females of the "Mackey" and "Mocho" which I am crossing with my Berkshire and China. I have also made arrangement to procure the "Bedford;" and it is my intention to procure the best breeds our country affords so that I can test their peculiar and individual qualities by comparison and demonstration; keeping each breed pure, as well as experimenting by crossing with the different varieties.

No animal on the farm has been more generally neglected than the hog, and it is my opinion, no animal will pay better, with proper care and attention to breed, for the expense incurred. But they require care and attention, which farmers and laborers are too apt to neglect.

Fearing I may trespass too much on your time, as well as that of your readers, I will conclude, by promising you, should it be agreeable, an account of my success in cultivating the Ruta Baga.

Bement's Hotel, Albany, March, 1836.

The most knowing are the most desirous of knowledge. The most virtuous the most desirous of improvement in virtue. On the contrary, the ignorant think themselves wise enough; the vicious are, in their own opinion, good enough.

Convolvulus Major.

Purpureus.

This elegant climbing plant is a native bindweed of America, from whence the seeds were first received in Italy, and from thence in England about 1629, as they are recorded amongst the flowers which embellished the garden in that age. This is a delicate species, and requires the aid of a hotbed to bring the young plants forward, which may be planted out in warm situations about the end of May. It is usually employed to cover the trellis-work of arbors, porticoes, and verandas, for which it is well adapted, on account of its climbing and binding nature, whilst its graceful-shaped corollas display the most beautiful shades of violet, reddish purple, and lilac, which are sometimes delicately shaded, and at others striped, so as to form a star; others are of a pure white, or slightly tinged with purple.

Fig. 7.

Convolvulus Major.

These plants will frequently climb to the height of ten or twelve feet; and when planted so as to receive the support of young trees, they have a more agreeable effect than when upheld by a stake. In Jamaica, this species of Convolvulus climbs the highest trees, suspending its china-looking cups from the branches in a most delightful manner, sometimes dangling in the air, and at others, forming graceful festoons.

It is from this twining nature of the plant, that the name of Convolvulus has been bestowed on it; and perhaps we have not a

native weed that displays a more beautiful flower than the great bindweed, which entwines itself amongst the shrubs of our hedge-rows until it reaches the top, where it expands its flowers in a dress that challenges the spotless snow for purity, and would demand more general admiration, were it less common.

However we may admire this species of bindwood in hedgerows, we must be cautious to keep it out of shrubberies, in which if it once enter it cannot be easily destroyed, as the smallest piece of its rambling root is sufficient to spread over a garden, where it frequently entwines its roots amongst those of roses or other shrubs, so as to make it exceedingly difficult to prevent its overpowering the plants which support it, and next to impossible to destroy it altogether. We are told that swine are excessively fond of this root, and we have frequently observed them grubbing for and devouring it with great eagerness; but as these animals are bad gardeners, we cannot avail ourselves of their assistance in the rooting out of the *Convolvulus Sepium*, without incurring a greater evil.

The Hay-Sweep.

The object of the Hay-Sweep is to collect and draw the hay from the winrow to the stack, or place of deposit. It consists of a piece of scantling, A A, 3 by 4 inches, and 10 feet long, united by seven upright bars of wood, 1 by 2 inches, and 3 feet long, to another piece B B, 4 by 5 inches and 10 feet long; through the latter, six holes are made in a horizontal direction to receive the teeth, which are pieces of very strong wood, 1½ by 4 inches, and so long as to project two feet and a half on each side of the piece B B, and tapering on their under side like the teeth of a horse-rake, so as not to run into the ground. At the ends of the pieces A A, B B, are attached two frames C D E F, termed gates, by strong hinges so made that the gates may turn round upon them through half a circle. These gates consist of two pieces of scantling 3 inches square and 3 feet long, united by two bars of wood G G, each 1 by 2 inches, and 3 feet long, and a third D E, 3 inches square, tapering on the under side like the runner of a sled, and projecting a few inches beyond the upright piece F E. The whipple trees are attached to the upright pieces F E, a little above the middle; they should admit of being raised or lowered in order to adjust the height exactly, which is readily determined by trial.

The mode of using this instrument is as follows:—A horse is attached to the whipple-tree at each end, and the length of which is to be regulated to the draught in such a way that the bottom of the gate may keep the teeth from running into the ground, and yet under the hay.—Not the least management or skill is further required; a small boy is placed on each horse, and passing on each

Fig. 8.

side of the winrow, sweep it off, and carry it to the stack. On arriving there, the horses are turned about, causing the gates to perform a semi-revolution, and drawing the instrument out from under the heap of hay, and they proceed as before to bring up another load. The teeth on each side of the piece B B are thus alternately used. In order that the hay may be easily pitched, it is indispensable that the load he left at the stack so that the back of it may be pitched first. From three to five hundred pounds of hay, are generally carried in each load.

As a labor-saving machine, where the distance of drawing is not great, this is fully equal if not superior to the revolving rake. Two horses and two boys only, are needed in using it. One will draw fast enough, in ordinary cases, to keep three pitchers and three stackers constantly at work. With this and a revolving rake, ten acres of hay may be cleared from the ground in half a day.

It leaves the meadow as clean as is done by a common rake. The cost of making is not more than three or four dollars.

The drawing of it, at the head of this article, was taken from an instrument in the possession of Wm. R. Smith, of Macedon, Wayne county, N. York, on whose farm its usefulness has been fully proved, and under whose direction it was first constructed.

Clover Lays.

It will undoubtedly be remembered that innumerable experiments have proved that clover lays, turned under, make an admirable dressing for a crop of wheat the next year.—Clover, if we mistake not, is a biennial—that is, lasting but two years: after flowering and going to seed the second summer, the roots begin to decay, and ultimately die out and leave the soil for the Herd's grass, or other plants which may be sowed with the clover. Hence it will be well, in order to make the most of the roots as a dressing for the wheat, to plough them under as early in the season after haying as can conveniently be done—by the following spring, the sod has become decayed and in a good state to promote the growth of the future crop.—*Maine Farmer.*

New Castle County, Delaware.

It affords us no little pleasure to inform our readers that an Agricultural Society has been organized by the intelligent and spirited farmers in New Castle County, Delaware. It is known as the "AGRICULTURAL SOCIETY OF NEW CASTLE COUNTY." All citizens of the county are eligible to membership, on the payment of five dollars annually by landholders, and two dollars and fifty cents by tenants. The Constitution limits the efforts of the Society to "Agriculture, Horticulture and the rearing of Silk," and it is made the duty of the Directors (18 in number) to collect and communicate information, touching improvements in husbandry, gardening, and the growth of silk, and implements used in their cultivation. From the high character of the gentlemen engaged in the organization of this Society, we anticipate for it an onward and a prosperous course. It will have a tendency to arouse the citizens of our sister state to a serious consideration of their true interests; and will lead, we hope, to the formation of similar societies in every county in the Peninsula. Our friends in New Castle, have gone to work in the right way. Previous to the organization of the Society, we learn that seventy-six gentlemen "impressed with the importance of placing it on a secure and permanent basis," pledged themselves to pay the sum of five dollars annually, for the next five years. We presume that this number has greatly increased. We hope that every intelligent and enterprising farmer in the county, will forthwith become a member of this Society, and share in its blessings.

We have the names of only two of the officers. J. H. GIBBONS, Corresponding Secretary; JAMES CAMBY, Treasurer—both we presume of Wilmington.

From the Ohio Review.

Culture of Ruta Baga.

Having seen much published upon the subject of raising ruta baga, all which has fell short of the crop I took last fall from a small piece of ground, I am induced to give not only the amount, bnt the manner of cultivating. To give the amount alone of any particular crop, without the manner of cultivating, is no benefit to any one.

I had a piece of dry sandy land, facing the south which I wished to prepare for a fruit garden and make more rich, and level than I could do by ploughing. I therefore covered the ground about an inch thick with manure, and with a spade dug and turned in the whole, to the full depth of the spade, taking care that each load was covered as soon as possible after spreading, to prevent loss by evaporation. This was done, or finished, the 5th of June. I then waited until I discovered indications of rain, which I think was on the tenth of the same month, when I immediately took a hand with me and commenced raking the ground with an iron rake. I next took a large rake made of three inch scantling, with five teeth, *fifteen* inches apart, and having a man to hold, drew it across the ground, the direction which I wished to have the rows run, making five marks. After that, we placed one outside tooth in one outside mark, making four marks, until the whole was completed. I then dropped the seed quite thick in every row except the last eight, where I skipped every other row, leaving them thirty inches apart, instead of fifteen. They came up in a very few days. I then took of gypsum one part, of ashes two parts, and having mixed the same, sprinkled about a quart per rod on each row.

In five or six days I thinned them out, so as to leave them from four to six inches apart. Ten days after I hoed them lightly, and gave them another dressing as before, which was all the labor bestowed upon them, until they were pulled.

From five rods of the ground planted fifteen inches apart, I gathered 61 bushels, measured in a two bushel measure, weighing 58 pounds to the bushel, which would make 1,952 bushels to the acre, or 113,216 pounds, equal to 50 tons 1,516 pounds. From the

ground where the rows were 30 inches apart the yield was at the rate of 1,434 bushels to the acre, the turneps larger, consequently not quite so heavy per bushel. One of the largest weighed 15 lbs. The above statement may appear incredible, still it is true. I was at first loath to believe it myself, and went and remeasured my measure, examined my figures, and found that all was correct, and "that facts are stubborn things."

In submitting this to the public, I am influenced less from a desire to boast, than from a sincere wish to have others communicate the result of their experience in agriculture, thereby benefiting the community at large. Respectfully yours,

WM. WETMORE.

Stow, Jan. 22, 1836.

Agricultural.

Who does not know that a prudent and skilful house-wife will victual her family with half the expense of some others, and even those that are not considered extravagant or wasteful, and furnish her table as well and give as good, perhaps better satisfaction to her boarders?

The one by means of hashups, soups, pottages, &c. will afford an agreeable variety, and at the same time convert every particle to profit, while the other, by less attention, and indifferent cookery, is sensibly wasting more than is eaten.

This idea, though very familiar and readily admitted by almost every one, still when applied to feeding stock seems to be very little understood and still less practised.

How frequently do we see large quantities of straw, butts of cornstalks, &c. in barnyards, enough almost to keep one half the creatures on the farm if properly attended to. The straw should be secured as soon as may be without injury to the grain. The straw cut up with a small proportion of hay, cornstalks or unthrashed oats, cut and mixed with it, or what is better, a small quantity of meal sprinkled upon it, the whole is readily eaten.

Corn fodder too, in the common way of using it, is more than half wasted. This should be harvested in the late approved way, that is to cut it up near the ground soon after it is out of the milk; this makes the fodder much more valuable without the least injury to the corn; this also should be cut fine in a machine and mixed with straw or hay, in the way which is found most advantageous—the whole stalk is very nutricious, but fed in the usual way, on account of its unmanageable nature, is not only lost, but is the means of much waste otherwise by being trodden under foot.

Beans and Pea vines, and even Potatoe tops, may be added occasionally, which will not injure the relish of the general dish of *hashups*, but will add much to the quantity of nutritive matter, all of which will readily be eaten and well relished.

A Practical Farmer.

A practical farmer whose livelihood depends upon his calling, should make it the pinnacle of his worldly ambition to excel in it. If he neglect his farm for any thing else he is generally loser both in interest and credit. Solomon, the wisest observer of men and things, tell us of his disgust at the sight of a slovenly farmer. "I went by the field of the slothful—and lo! it was all grown over with thorns, and nettles had covered the face thereof, and the stone wall was all broken down."

Owner, where art thou? Perhaps dozing away thy time in slumber and sloth, or spending thy time at a tavern, or perhaps dreaming of promotion, or engaged in the business of some petty office. Better mind thy own proper business, else, "shall thy poverty come as an armed man." A farmer on the other hand, who keeps his land and his stock in excellent order, need not be ashamed even if Solomon himself were passing by. Every passing traveler, no sooner casts his eyes over such a farm, than he honors the proprietor in his heart. The proprietor, moreover, is sure to receive for his pains, something that is more solid than honor. A comfortable, decent livelihood, for which he is indebted to Him only, whose is the earth and the fullness thereof.

What Farmers may be.

If I may be permitted to advance an opinion, I will say that, judging from daily observation, it would seem that many believe the exercise of mental and physical powers have no connection in the business of husbandry, that our fathers and grandfathers *thought* all that was necessary to think upon the subject, and that nothing remains for us to do but work, work, without even *thinking* that we had power to think.

Therefore, if we would lay a "firm basis on which to build up their minds in wisdom and knowledge," we must first convince them that the course pursued by our fathers and grandfathers in relation to husbandry, is by no means the best course.

Convince them that in general a small farm is better than a large one.

Convince them that a little well tilled, is better than much half tilled.

Convince them that two loads of manure

is better than one, and every load judiciously applied is better than a silver dollar.

Convince them that three good cows are better than half a dozen poor ones, and so of all other stock.

Convince them that raising their own bread stuff and a little to sell, is far better than "going to New York to mill."

Convince them that two blades of grass may easily be made to grow, where only one grew before.

Convince them that experiment is the mother of improvement, and improvement the true source of wealth.

Convince them of these simple truths, and induce them to practice accordingly, and the work is done.

You will then bring *mind* and *body* to act in unison. You will elevate the husbandman to his natural sphere in the scale of existence. You will place him in the road to higher eminence. He will *think* for himself, he will be learned, he will be wise, he will be wealthy and influential.—*Main Farmer.*

From the New England Farmer.

Ploughs and Ploughing.

Some time ago I promised to write you an article on Ploughs and Ploughing. We farmers are rather set in our notions of husbandry, and each of course prefers his own mode until fully convinced of a better.

Ploughing, is the most important operation in husbandry, and should be closely attended to by all who choose this mode, to "turn the world upside down;" and with a good plough we can do this with much less hazard to the community than our Political Mountebanks, or Trades Union Associations.

The best ploughing is that which most completely subverts the soil and buries beneath it the entire vegetable growth. To effect this a good plough is indispensible. Rough and stony ground may indeed be rooted up by the short rooter plough. Such lands are usually cross-ploughed before planting.—Plain fields require a different instrument; a much longer plough is wanted here, to turn the furrow flat without breaking and without the aid of the Ploughman's foot. Such an instrument runs easier than a short one, because it enters the earth more graduallp, as a thin wedge opens wood more easily than a thick one. The furrow rises less suddenly on the inclined plane of the mould board, and falls where it should do, in the bed of the preceding furrow and completely fills it. To make sure work, the coulter or cutter should not stand perpendicular, but should lean to the right being placed a little anglewise in the beam for this purpose, and cutting the edge of the furrow slice in a bevil form, it will then shut in like a trap door. Let not my brother farmers be alarmed lest their lands should be turned too flat! If they wish to see them lie edge up, or shingled, one furrow upon another, or broken into short junks, they can use a short rooter or a post, as the Africans do. "But," say they, "the *soil should be light.*" Newly plounhed green sward always lies too light the first summer and requires thorough rolling and harrowing, to prevent its suffering for want of moisture; for unless the particles of earth, &c. come in contact, capilliary attraction ceases and the turned sod draws no moisture from the subsoil. Hence our crops, in a dry season, suffer more on green sward than on old ground.

There is no danger in laying the green sward furrow too flat; if turned as it always should be, when the grass is green, that and the roots soon begin to decay, and in our summer months your horses will break through the sod in passing, and demonstrate to you that the furrow does not lie close enough.

The advantages arising from this mode are, we cover up and set to fermenting the whole mass of vegetable matter that covered the soil—we destroy all the noxious weeds—we render the surface smooth and much more easy to manage, and we avoid making loose and broken sods in seeding down to grass—for the furrow thus laid flat should never be disturbed till a new breaking up after a course of grass crops. If seeded down to grass in this state it will not lie so heavy and will not want to be disturbed again so soon as if it had been completely pulverized before seeding. Ploughs for our plains should, therefore be made long—they run more steady aud cut the furrows more true: and it is not green sward only that should be turned flat—stubble land, weedy lands, and cornhills, should be turned flat, and that only once till the matter turned underneath is decomposed. In preparing corn land for spring sowing, therefore, a heavy harrow should be first used. Make the surface as level as possible with this, then let the plough turn the soil once over and no more before sowing. This furrow may be as fine as you choose, but when once you have turned this mass of stalks, of weeds, and grass underneath, it is absurd to disturb it during the same week or month—we do much injury by ploughing too often—we undo our own work.

The ploughs in common use are quite too short in the waist. For thirty years past we have made no improvement in this instrument excepting in the regularity and smoothness of the mould board.

Yours,

WM. BUCKMINISTER.